

Remarks

Reconsideration of this application is requested. By this response to the Office Action, claims 1, 6 and 21 were amended and claims 5 and 15 were canceled. A listing of claims and the actions taken is included in this amendment. Claims 1-4, 6-14 and 16-22 remain in the application.

Claim Objections

The Office Action objected to claims 1, 6, and 20-21. Per this response it is believed that appropriate changes in claim language have been made to claims 1, 6 and 21 to overcome the objections. A correction to claim 20 has not been made.

Response to the 35 U.S.C. §102(e) Rejection

The Office Action rejected claims 1-4 and 6-14 under 35 U.S.C. §102(e) as being anticipated by Okawa et al. (U.S. Publication No. U.S. 2004/0038713 A1).

Claims 1-4

Applicant's amended claim 1 recites a mobile station that includes a first and second sectored antenna to operate simultaneously in a transmit mode, where a combination of the first and second sectored antennas form a virtual omni-directional antenna selected in a Request-to-Send (RTS) and Clear-to-Send (CTS) exchange with an access point.

Support for the amended claim language may be found in the specification on page 6, lines 13-26, where Applicant states that sectored antennas may be employed in the mobile station to provide spatial diversity. Applicant further states in the specification that the Request-to-Send (RTS) and Clear-to-Send (CTS) exchange between a mobile station and an access point may be used as a training cycle to select the sectored antenna that has the best reception or best signal quality.

Okawa et al. illustrate in FIG. 3A a radio base station 10 that includes sector antennas having directional characteristics in different directions to accommodate a first sector 1a, a second sector 1b and a third sector 1c. The sector antennas receive radio wave signals from other wireless clients located in a radio zone. Thus, Okawa et al. teach in FIG. 3A and continue in varying aspects in the other figures, that multiple sector antennas and omni-directional antennas may exist at a base station to transmit and receive radio wave signals.

Applicant's amended claim 1 is for a mobile station, and not a base station. The mobile station includes a first and second sectored antenna that operate simultaneously in a transmit mode. Note that Okawa et al. use the multiple sector antennas at a base station, but are silent on teaching the use of the multiple sector antennas in a mobile station. Therefore Okawa et al. do not teach Applicant's claimed invention as recited in claim 1.

Further, Applicant's claim 1 was amended to recite that a combination of the first and second sectored antennas form a virtual omni-directional antenna selected in a Request-to-Send (RTS) and Clear-to-Send (CTS) exchange. This feature is not taught or suggested by Okawa et al. Accordingly, the prior art reference of Okawa et al. cannot anticipate Applicant's claim 1 and the rejection based on this reference should be removed.

Claims 2-4 directly depend from base claim 1 and are believed allowable over the art of record for at least the same reasons as claim 1.

Claims 6-14

Applicant's amended claim 6 recites a mobile device having at least two omni-directional antennas, where a first omni-directional antenna is formed by a combination of multiple sectored antennas and the at least two omni-directional antennas use different tones.

Again, Okawa et al. use the multiple sector antennas at a base station and do not teach the use of the multiple sector antennas in a mobile station. Therefore, the prior art reference of Okawa et al. cannot anticipate Applicant's claimed invention as recited in claim 6. Applicant's claim 6 further recites that the two omni-directional antennas use different tones, a feature not taught by Okawa et al. Applicant disagrees with the Examiner in equating Okawa's first signal 3b and second signal 4a illustrated in FIGs. 6A and 6B with Applicant's claimed two omni-directional antennas that use different tones. Okawa et al. simply does not teach two omni-directional antennas that use different tones. The rejection based on the reference of Okawa et al. should be removed.

Claims 7-14 depend, either directly or indirectly from base claim 6 and are believed allowable over the art of record for at least the same reasons as claim 6.

Response to the 35 U.S.C. §103 Rejection

The Office Action rejected claims 5 and 15 under 35 U.S.C. §103(a) as being unpatentable over Okawa et al. (U.S. Publication No. U.S. 2004/0077361) in view of Ueda (U.S. Patent No. 5,548,807).

Claims 5 and 15 have been canceled per this response and the rejection of these claims is now moot.

Allowable Subject matter

Applicant wishes to thank the Examiner for indicating that claims 16-22 are allowed.

Conclusion

The foregoing is submitted as a full and complete response to the Office Action and reconsideration of the objections and rejections is requested. It is submitted that claims 1-4 and 6-14 are now in condition for allowance and allowance of these claims is now earnestly solicited.

Applicants herewith petition the Director of the United States Patent and Trademark Office to extend the time for response to the Office Action dated November 29, 2005, for 2 months. Should it be determined that an additional fee is due under 37 CFR §1.16 or 1.17, or any excess fee has been received, please charge that fee or credit the amount of overcharge to deposit account #02-2666.

If the Examiner believes that there are any informalities that can be corrected by an Examiner's amendment, a telephone call to the undersigned at (480) 715-5388 is respectfully solicited.

Respectfully submitted,
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